



Dallas–Fort Worth



integrating **Transportation
& Stormwater Infrastructure**

Transportation and Stormwater Infrastructure (TSI) study

Group Members

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2024 CFL mTAP

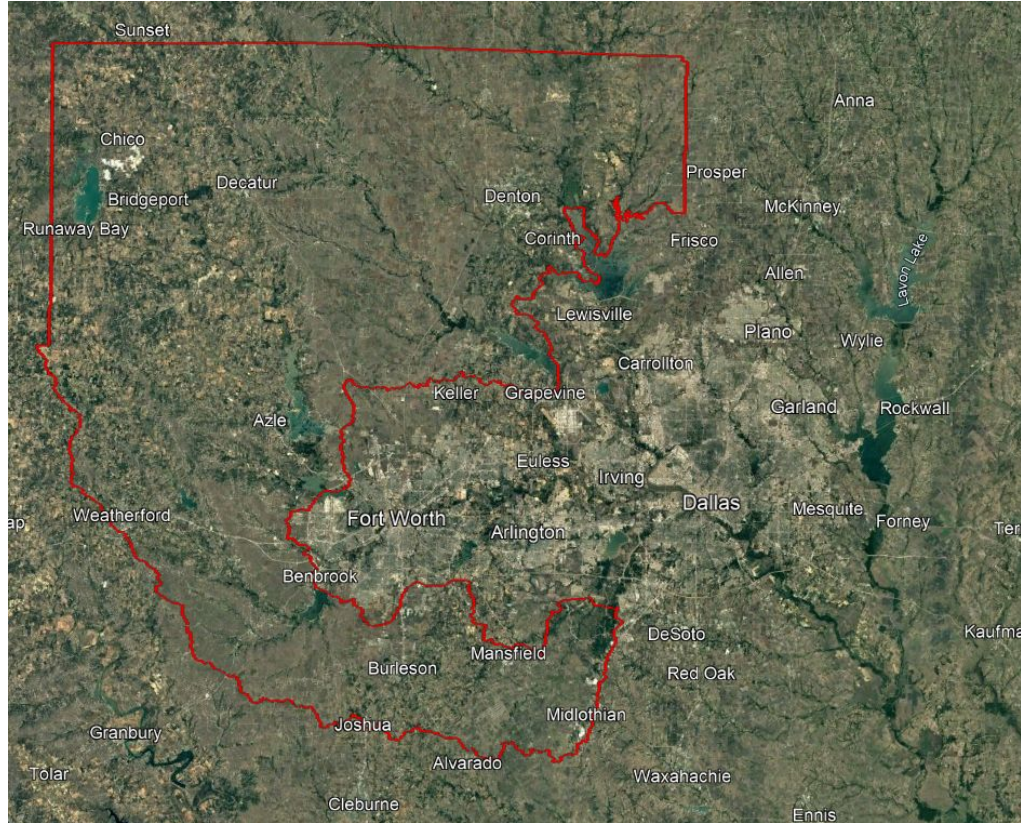


Mission Statement

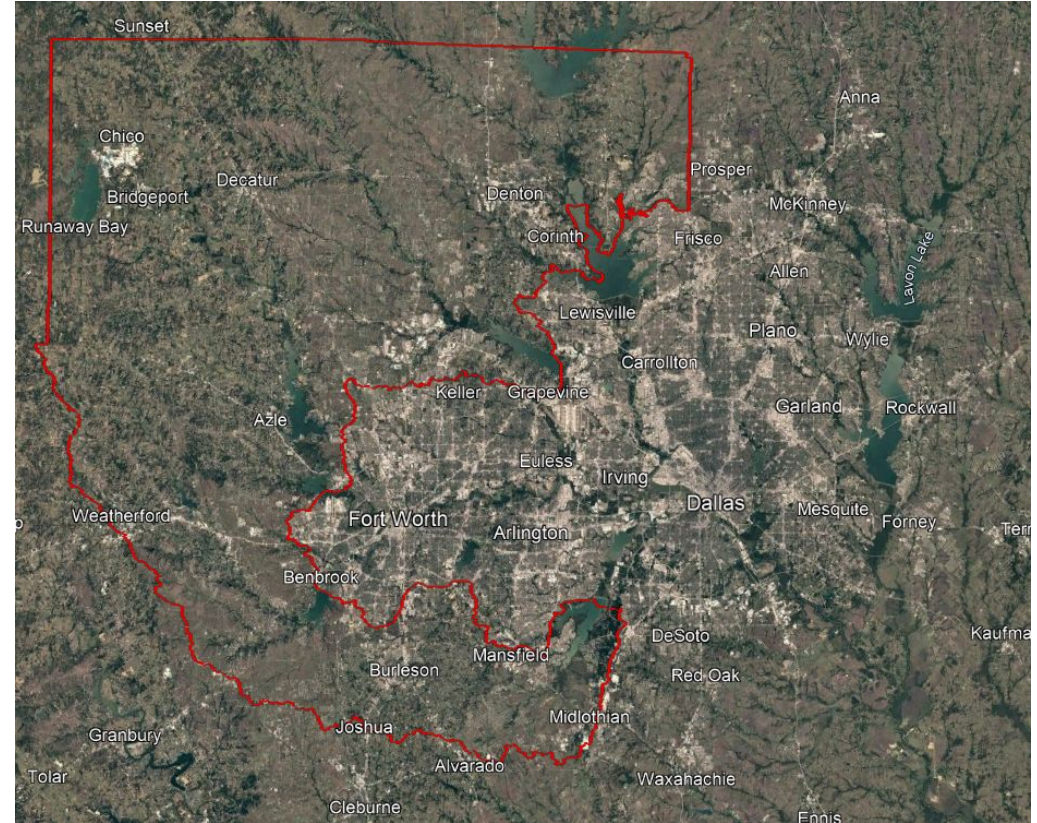
Collaborating with NCTCOG and ULI, our mTAP team endeavors to craft a comprehensive framework plan to support TSI's goal to educate and engage the development community. This plan will not only provide action-oriented guidance but also prioritize stakeholder engagement, offering strategies to encourage broader adoption within North Texas.

North Texas

1984



2024

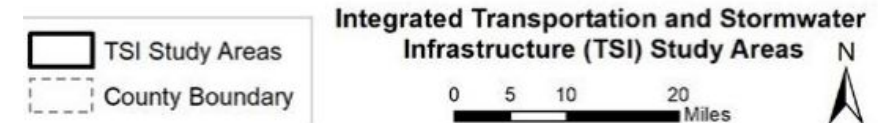
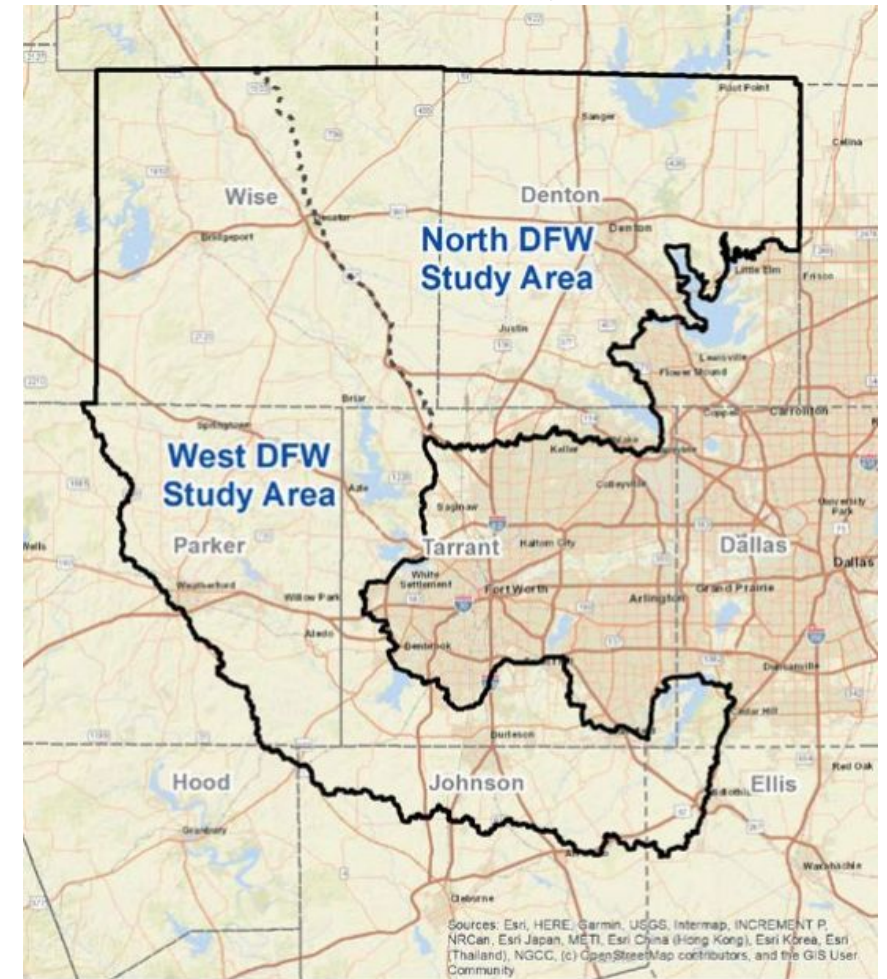


- Urban floodplain is rising based on gage data provided by TSI

TSI Study Background Information

Study Goals:

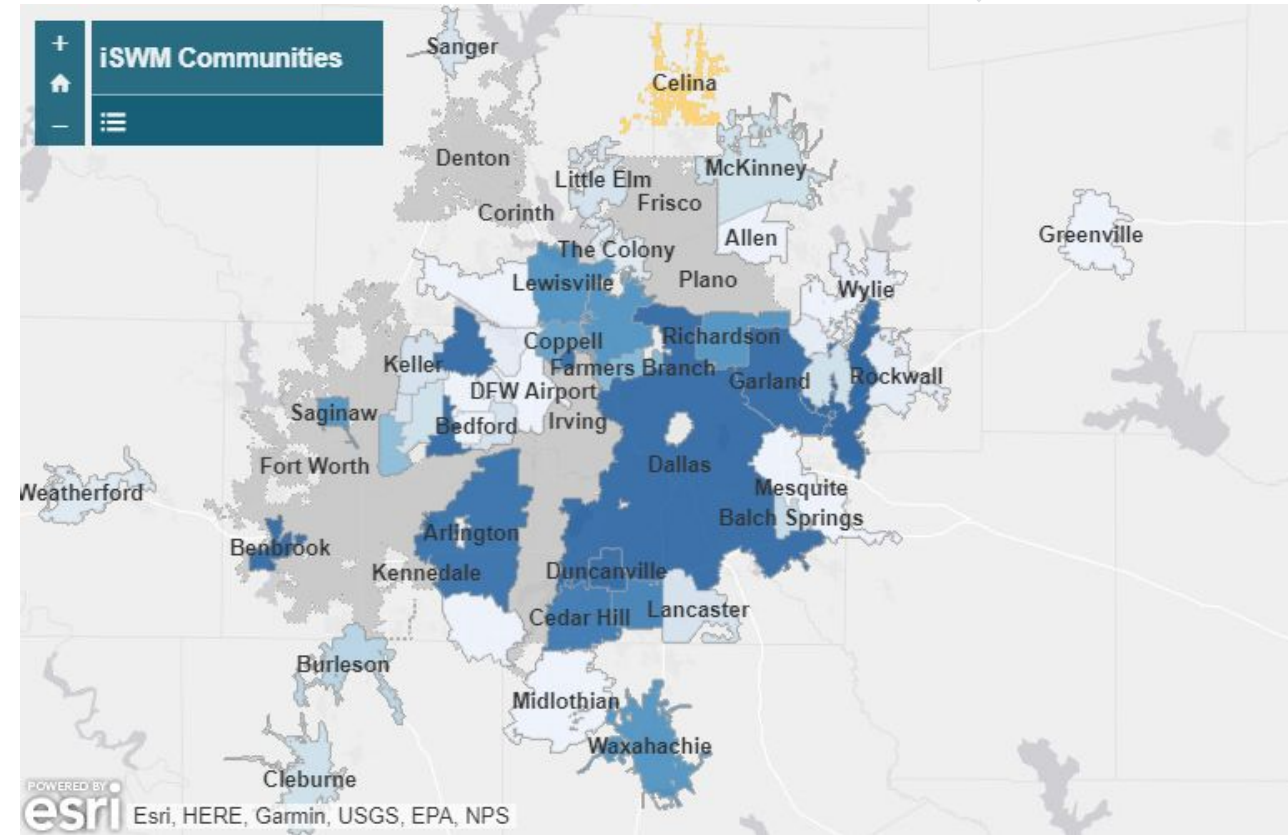
1. Demonstrate a **process for proactive planning** that integrates transportation, stormwater, and environmental planning that will serve as a model to be replicated elsewhere in Texas and the United States.
2. **Reduce flooding within and downstream** from rapidly growing communities in the region's outlying counties, including increasing the resiliency of infrastructure.
3. Develop tools and resources, including policy recommendations, to **empower communities** to adopt higher floodplain management standards.
4. **Implement local-scale** innovation in hydrologic and hydraulic modeling and emergency management modeling.
5. Produce planning-level design for transportation infrastructure and stormwater detention that produces **environmental benefits**.



North Texas

Floodplain and Drainage Standards for Land Development

- Regulations vary across jurisdictions (city and county levels)
- Cities voluntarily adopt enhanced standards for stormwater and floodplain mitigation
- Integrated Storm-Water Management (iSWM) by NCTCOG
 - 21 Cities
 - 7 Cities within Study Area



The Why

Identifying The Problem

- How to reduce flooding downstream of rapidly growing areas by:
 - Engaging with development community
 - Encouraging development community to support and implement enhanced standards to increase stormwater and floodplain mitigation
- The development community was identified as key stakeholder:
 - direct impact
 - principal decision-makers for land development projects
 - developing in areas with minimal local or county regulations



Source: Texas Monthly

The What

The Process



Understand

- Requested data substantiating the problem of downstream flood impact
- Review of 21-studies and reports from many different geographies around the US
- Gage data to support indication of flood related risks

Guidance

- Coordination with TSI on appropriate level of support
- ULI CFL not suitable for detailed engineering assessment
- ULI CFL focused on strategies for education and involvement within development community

Collect and Present

- Compilation of information provided by group and outside sources
- Focus on information and strategies that can be deployed by TSI

Multi-Faceted Approach for Roadmap

1. Stakeholder Identification / Outreach
 - a. Identification of the “Development Community”
 - b. Communication / Collaboration Options
2. Stakeholder Concerns/Obstacles
 - a. Conduct Preliminary Survey
 - b. Perceptions
 - c. Communication/Education
 - d. Uncertainties (Cost, Timeline, Liabilities)
3. Strategies to meet Obstacles
 - a. Education
 - b. Simplification/Tools
 - c. Incentivization
 - d. Limit Liability
4. Roadmap for Continued Engagement
 - a. Share results of Preliminary Survey Results
 - b. Provide resources for TSI to aid in their engagement with development community





Stakeholders

Development Community in DFW

Sample of Commercial and Residential Developers

Commercial



LINCOLN
PROPERTY
COMPANY



GREYSTAR™



Brookfield
Properties



Residential



CORSON  CRAMER
DEVELOPMENT



Hines



REPUBLIC PROPERTY GROUP

Development Community in DFW

Real Estate + Professional Organizations

Real Estate

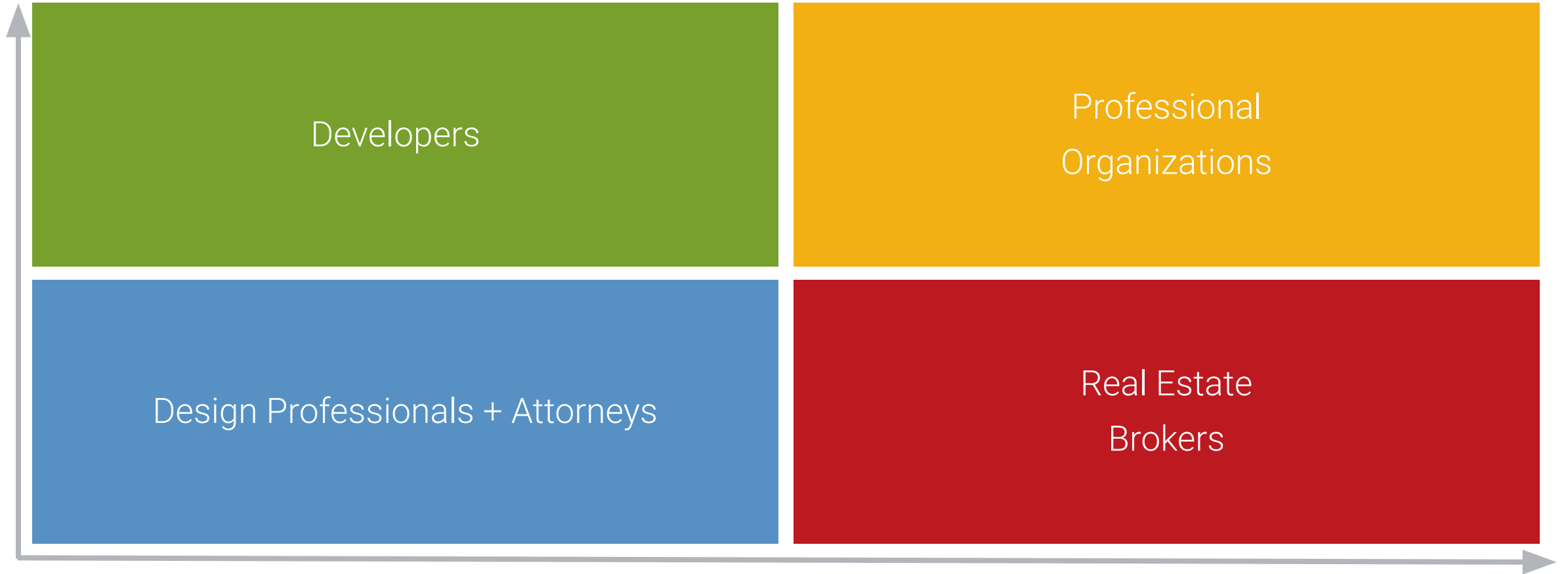


Professional Organizations



Development Community in DFW

Compiled Directory of Stakeholders for TSI



How to Connect



- Education and Community Engagement
 - Panel discussion with developers (maybe future phase mTAP project for TSI)
 - Annual summit – TSI lead (PDH credits)
 - Lunch and Learns
 - Host a Developer Roundtable
 - Coordinate a “hack-a-thon” event
 - Partner with UrbanPlan to engage a workshop for community input
- Building Community Partnerships
 - Working with counties and cities to advocate for iSWM
 - Establish guidelines for future land use plans incorporation
 - Collaborate with regional “Tier 1 Research” universities
 - Higher education institutions - get inside the classroom to educate soon-to-be engineers about the importance of iSWM



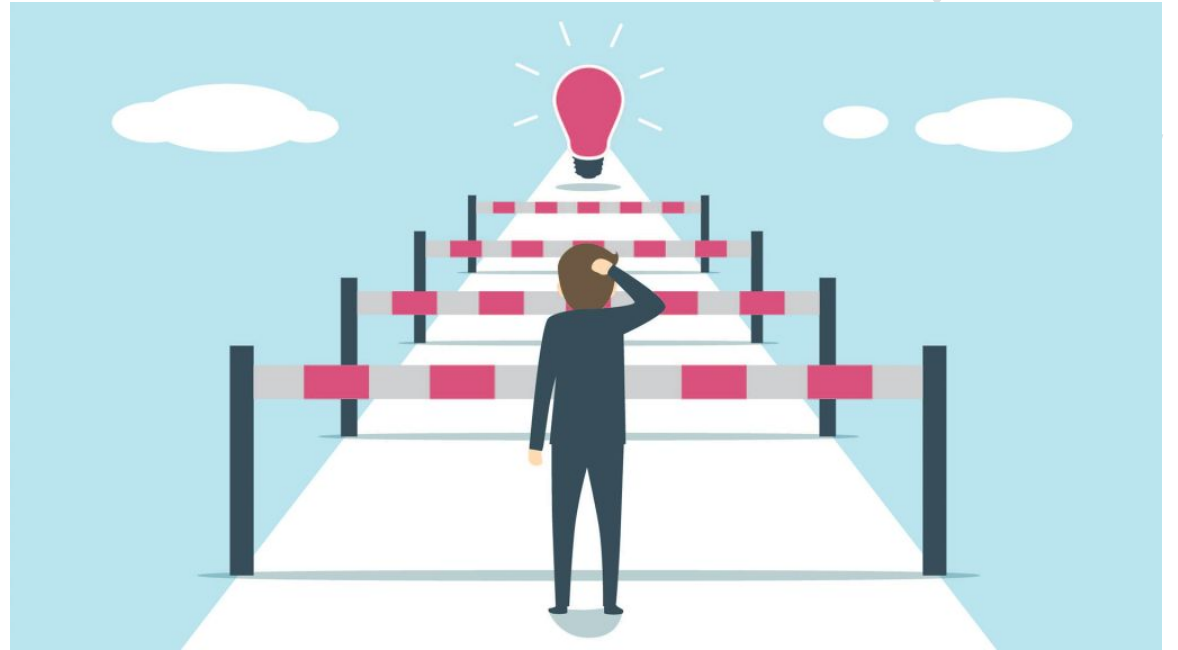


Stakeholder Concerns + Obstacles

Stakeholder Concerns + Obstacles

mTAP Team Input

- Awareness of the issue
- Cost implications
- Voluntary in unincorporated areas
- General education
- Perception of BMP's being non-effective
- Space limitations
- Increased liability
- Limited predictability

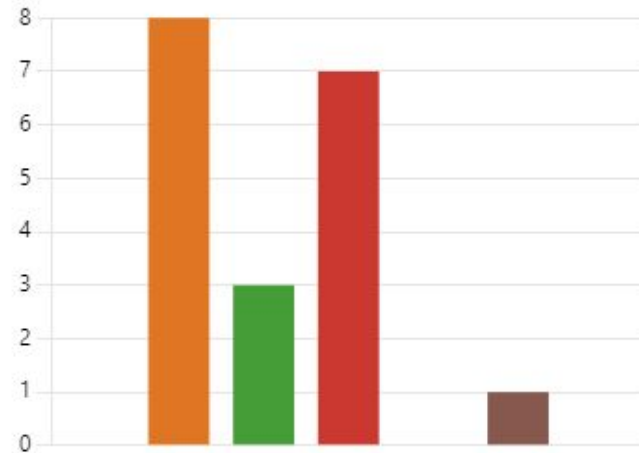


Stakeholder Concerns + Obstacles

Questions

- Sent out > 60 Surveys
- As of 4/30, received 19 responses (30% response rate)

| | |
|----------------------------|---|
| ● Broker/Real Estate Agent | 0 |
| ● Developer | 8 |
| ● Attorney | 3 |
| ● Designer | 7 |
| ● Builder | 0 |
| ● Contractor | 1 |
| ● Other | 0 |



Sample of Questions:

1. Are you aware of an existing or potential flooding problem within the North Texas regional watersheds.
2. Do you think that there is a “need” for additional or more robust stormwater requirements in North Texas?
3. Do you know what Green Infrastructure means?
4. What kind of training do you receive regarding new technology/sustainability/best practices related to land development?
5. What type of incentive would increase voluntary implementation of stormwater mitigation practices in jurisdictions where such standards are not required, such as unincorporated areas?



Strategies

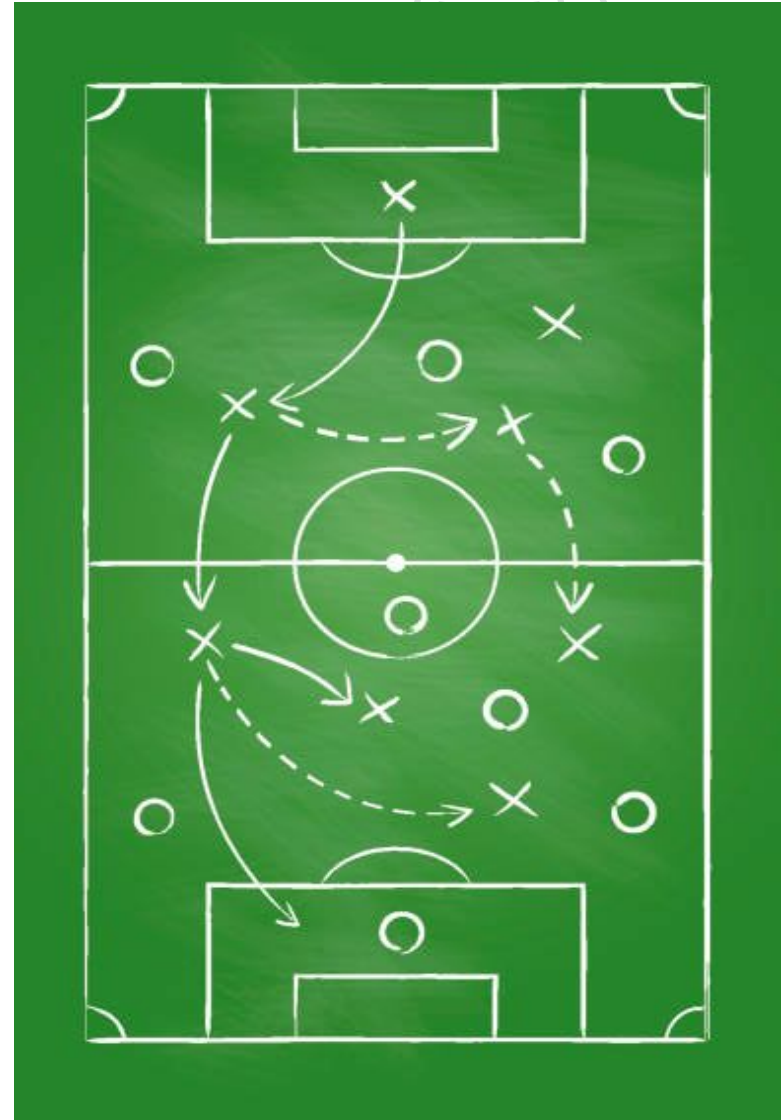
Possible Solutions, Incentives, or Alternatives to Present to Stakeholders



Strategies

Overview

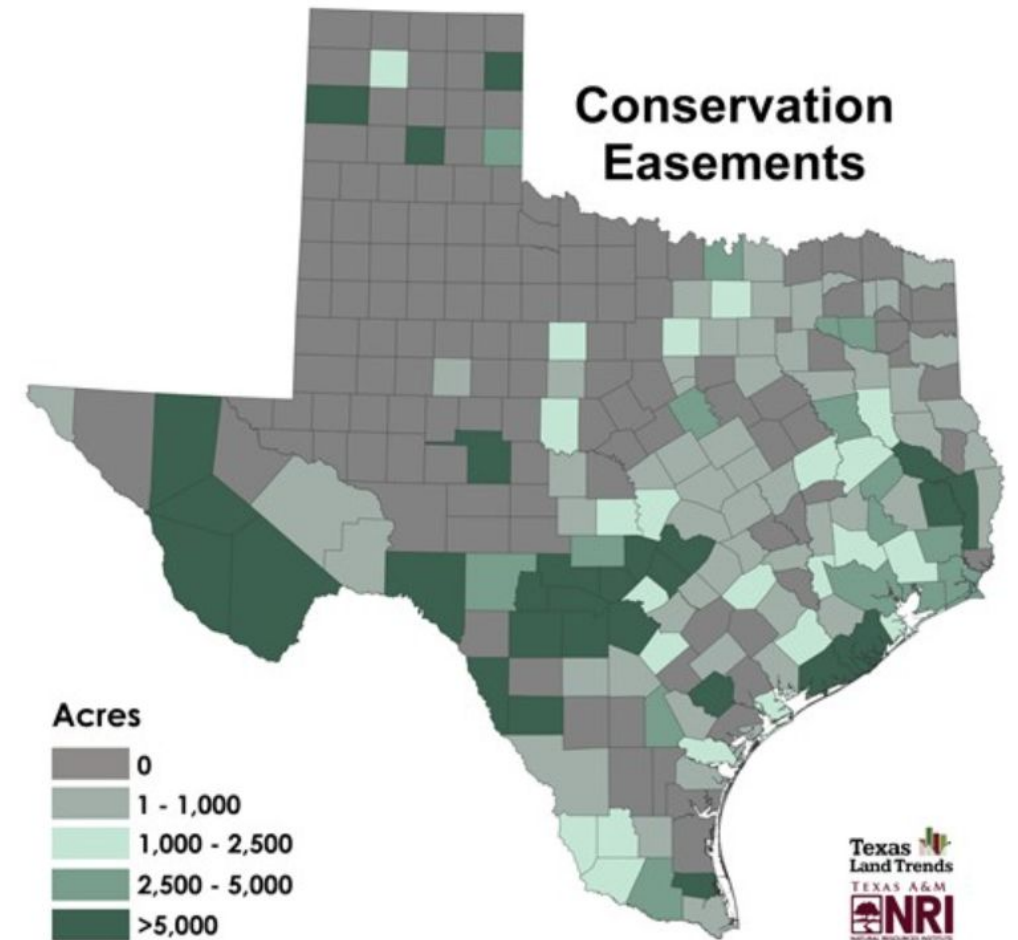
- Case Studies
- Consultation with Land Use Economist to analyze areas and generate development impact study
- Alternative development pattern
 - Conservation Easements
 - Clustering (Density as BMP)
 - Special Purpose District (MUD)
- Low Impact Development
- Assistance from Resources
 - Texas Land Trust Council
 - Trust for Public Land
 - Texas Land Conservancy
 - Texas Community Watershed Partners
- Economic Benefits
 - Grants
- Recognition



Strategies

Conservation Easements

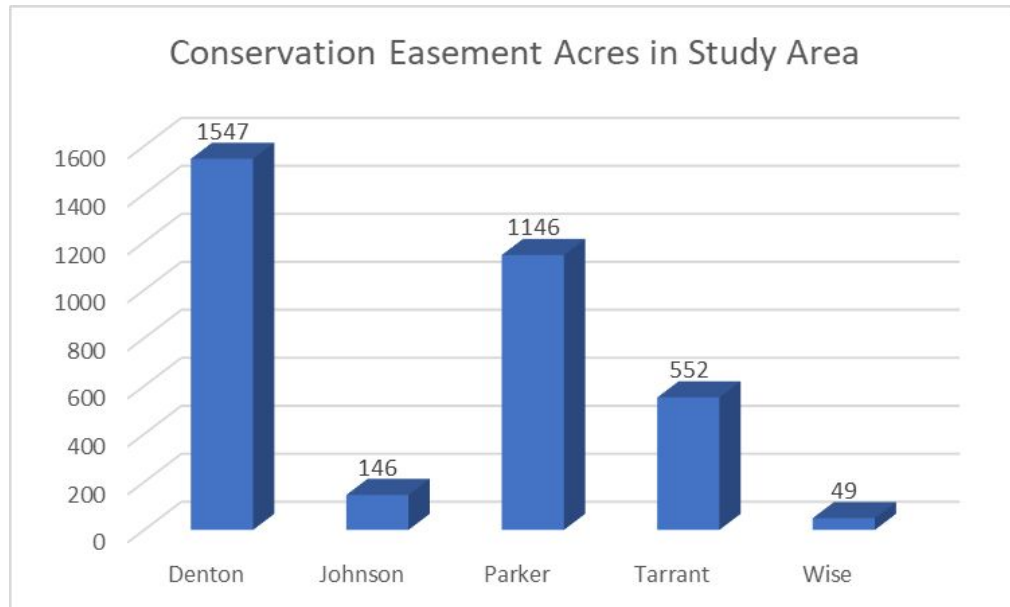
- set aside land for non-profit to own/maintain in perpetuity
- significant tax and/or municipal fee benefit for developer/owner
- 1.9M Acres of CE's in Texas
- Texas Land Trust: <https://texaslandtrustcouncil.org/>
- Guidebook from Texas Land Trust Council for Interested Property Owners



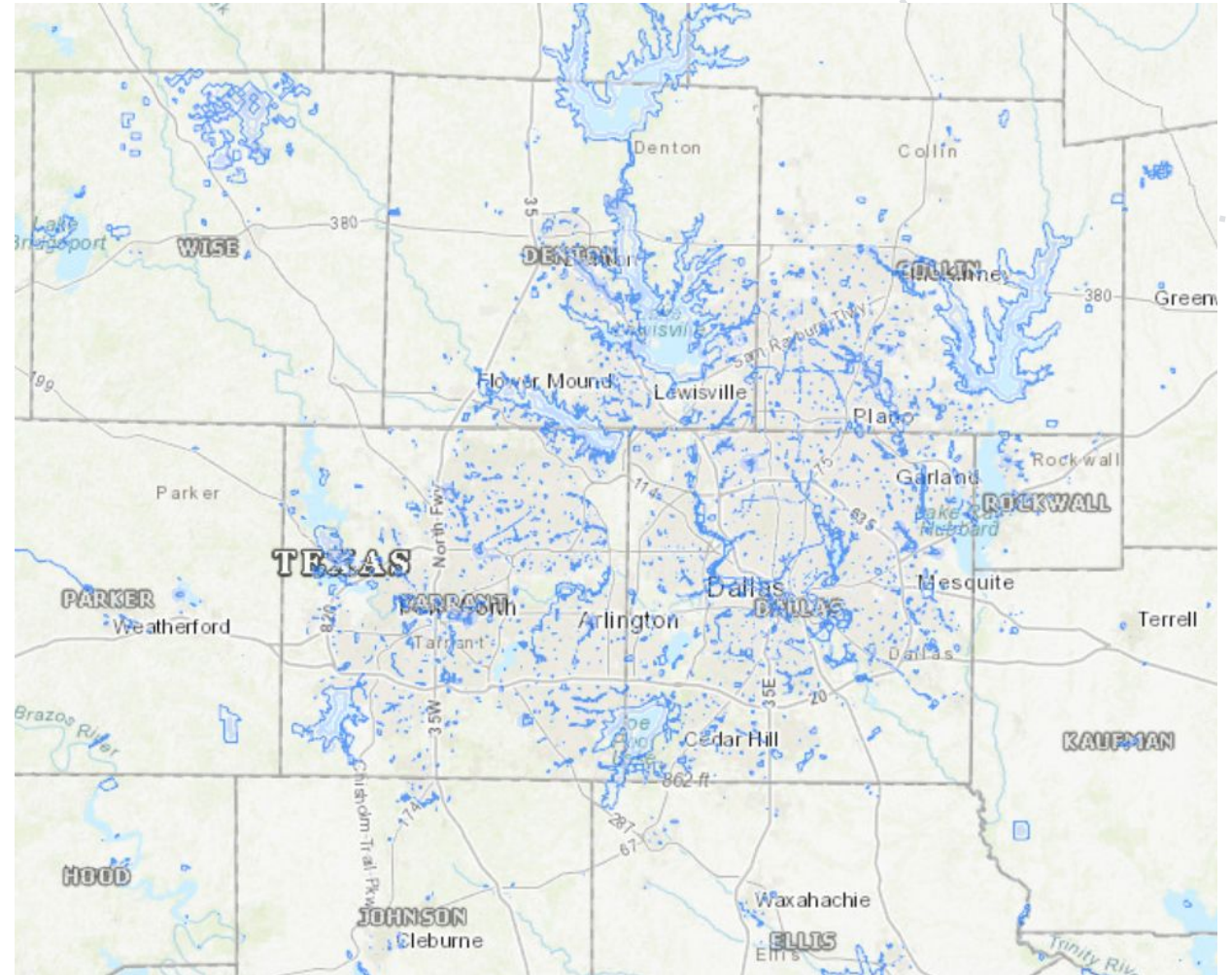
Strategies

Conservation Easements in Study Area

- Counties in Study Area provide less than 0.2% of acreage of total Conservation Easements in the State.



Source: Conservation Lands Inventory by Conservation Land Trust Council



Source: National Conservation Easement Database



Roadmap

Roadmap

Resources

- Stakeholder Directory
- Strategies + Incentives for Stakeholder Support and Implementation
- Preliminary Survey Results
- Additional Resources



Q&A

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